

*Claims:*

Please amend the pending claims as follows:

1       1. (Currently amended) A blade support sub-assembly adapted to be used with a scraper  
2       blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,  
3       comprising:

4               a pair of notched receiving members, each notched receiving member having a  
5            notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for  
6            receiving a scraper blade, and said pair of notched receiving members adapted for use  
7            with a mounting sub-assembly;

8               a face plate extending between said pair of notched receiving members and about  
9            parallel to the scraper blade such that at least a portion of the scraper blade rests flush  
10           against said face plate when the scraper blade is situated in said pair of notched receiving  
11           members; and

12               a means for vertically adjusting and rigidly fixing a height of the scraper blade in  
13            relation to a fixed position of said pair of notched receiving members and said face plate  
14           such that the scraper blade is in contact with a surface of the conveyor belt to be scraped.

1       2. (Currently amended) The blade support sub-assembly according to claim 1, wherein said  
2       means for vertically adjusting and rigidly fixing a height of the scraper blade ~~within said~~  
3       ~~notches in relation to a fixed position~~ of said pair of notched receiving members  
4       comprises a horizontal blade stabilizer approximately perpendicular to and extending  
5       beneath said face plate, and one or more adjustable lock bolts extending upward through  
6       said horizontal blade stabilizer and in communication with a bottom surface of the  
7       scraper blade, wherein rotating one said adjustable lock bolt in a first direction raises said  
8       adjustable lock bolt and the scraper blade, and rotating one said adjustable lock bolt in a  
9       second direction lowers said adjustable lock bolt and the scraper blade.

- 1 3. (Original) The blade support sub-assembly according to claim 1, further comprising a  
2 means for removably securing the scraper blade within said notches of said pair of  
3 notched receiving members.
- 1 4. (Currently Amended) The blade support sub-assembly according to claim 3, wherein said  
2 means for removably securing the scraper blade comprises one or more adjustable screws  
3 and said face plate having one or more holes that align with one or more holes in a  
4 scraper blade, wherein each of said adjustable screws is adapted to pass through one of  
5 the holes in the scraper blade and through one of said holes in said face plate, thereby  
6 securing the scraper blade to said face plate at a fixed position.
- 1 5. (Original) The blade support sub-assembly according to claim 1, further comprising a  
2 shield attached to the scraper blade, wherein said shield extends from the scraper blade  
3 and over the blade support sub-assembly.
- 1 6. (Original) The blade support sub-assembly according to claim 1, wherein said rear  
2 vertical stabilizer is taller in height than said front vertical stabilizer.
- 1 7. (Original) The blade support sub-assembly according to claim 1, further comprising a  
2 scraper blade having a blade insert fixed within a blade housing.
- 1 8. (Original) The blade support sub-assembly according to claim 1, further comprising a  
2 means for spraying a liquid on the conveyor belt.
- 1 9. (Original) The blade support sub-assembly according to claim 8, wherein said means for  
2 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more  
3 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for

1 securing said pipeline and said one or more nozzles in proximity to the blade support sub-  
2 assembly.

10. (Currently amended) The blade support sub-assembly according to claim 9, further  
comprising A blade support sub-assembly adapted to be used with a scraper blade for  
scraping and cleaning a conveyor belt and with a mounting sub-assembly, comprising:  
a pair of notched receiving members, each notched receiving member having a  
notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for  
receiving a scraper blade, and said pair of notched receiving members adapted for use  
with a mounting sub-assembly;  
a face plate extending between said pair of notched receiving members and about  
parallel to the scraper blade such that at least a portion of the scraper blade rests flush  
against said face plate when the scraper blade is situated in said pair of notched receiving  
members;  
a means for vertically adjusting a height of the scraper blade in relation to a fixed  
position of said pair of notched receiving members such that the scraper blade is in  
contact with a surface of the conveyor belt to be scraped;  
a means for spraying a liquid on the conveyor belt, wherein said means for  
spraying a liquid comprises a pipeline, for transporting a liquid, having one or more  
nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for  
securing said pipeline and said one or more nozzles in proximity to the blade support sub-  
assembly; and  
a shield, having one or more holes, attached to the scraper blade, wherein said  
shield extends from the scraper blade and over the blade support sub-assembly, wherein  
each of said one or more nozzles of said pipeline aligns with and extends through one of  
said one or more holes in said shield.

1 11. (Currently amended) The blade support sub-assembly according to ~~claim 9~~ claim 10,  
2 wherein said shield is attached to a front of the scraper blade such that the liquid is  
3 sprayed ~~at a point on a conveyor belt ahead of the scraper blade~~ toward the conveyor belt.

1 12. (Currently amended) The blade support sub-assembly according to ~~claim 9~~ claim 10,  
2 wherein said shield is attached to a rear of the scraper blade such that the liquid is sprayed  
3 ~~at a point on a conveyor belt behind the scraper blade~~ toward the conveyor belt.

1 13. (Currently amended) ~~The blade support sub-assembly according to claim 8, A blade~~  
2 ~~support sub-assembly adapted to be used with a scraper blade for scraping and cleaning a~~  
3 ~~conveyor belt and with a mounting sub-assembly, comprising:~~

4 a pair of notched receiving members, each notched receiving member having a  
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for  
6 receiving a scraper blade, and said pair of notched receiving members adapted for use  
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about  
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush  
10 against said face plate when the scraper blade is situated in said pair of notched receiving  
11 members;

12 a means for vertically adjusting a height of the scraper blade in relation to a fixed  
13 position of said pair of notched receiving members such that the scraper blade is in  
14 contact with a surface of the conveyor belt to be scraped; and

15 a means for spraying a liquid on the conveyor belt, wherein the liquid is selected  
16 from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust  
17 inhibitor.

1 22. (Currently Amended) The blade support sub-assembly according to ~~claim 21~~ claim 26,  
2 wherein said means for spraying a liquid comprises a pipeline, for transporting a liquid,  
3 having one or more nozzles, a means for restricting a flow of the liquid through said  
4 pipeline, and a means for securing said pipeline and said one or more nozzles in  
5 proximity to the blade support sub-assembly.

1 23. (Currently amended) ~~The blade support sub-assembly according to claim 21, further~~  
2 ~~comprising A blade support sub-assembly adapted to be used with a scraper blade for~~  
3 ~~scraping and cleaning a conveyor belt and with a mounting sub-assembly, comprising:~~  
4 ~~a pair of notched receiving members, each notched receiving member having a~~  
5 ~~notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for~~  
6 ~~receiving a scraper blade, and said pair of notched receiving members adapted for use~~  
7 ~~with a mounting sub-assembly;~~

8 a face plate extending between said pair of notched receiving members and about  
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush  
10 against said face plate when the scraper blade is situated in said pair of notched receiving  
11 members;

12 a means for spraying a liquid on the conveyor belt, wherein said means for  
13 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more  
14 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for  
15 securing said pipeline and said one or more nozzles in proximity to the blade support sub-  
16 assembly; and

17 a shield, having one or more holes, attached to the scraper blade, wherein said  
18 shield extends from the scraper blade and over the blade support sub-assembly, wherein  
19 each of said one or more nozzles of said pipeline aligns with and extends through one of  
20 said one or more holes in said shield.

1 24. (Currently amended) The blade support sub-assembly according to claim 23, wherein said  
2 shield is attached to a front of the scraper blade such that the liquid is sprayed ~~at a point~~  
3 ~~on a conveyor belt ahead of the scraper blade toward the conveyor belt.~~

1 25. (Currently amended) The blade support sub-assembly according to claim 23, wherein said  
2 shield is attached to a rear of the scraper blade such that the liquid is sprayed ~~at a point on~~  
3 ~~a conveyor belt behind the scraper blade toward the conveyor belt.~~

1 26. (Currently amended) ~~The blade support sub-assembly according to claim 24, A blade~~  
2 ~~support sub-assembly adapted to be used with a scraper blade for scraping and cleaning a~~  
3 ~~conveyor belt and with a mounting sub-assembly, comprising:~~  
4 ~~a pair of notched receiving members, each notched receiving member having a~~  
5 ~~notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for~~  
6 ~~receiving a scraper blade, and said pair of notched receiving members adapted for use~~  
7 ~~with a mounting sub-assembly;~~  
8 ~~a face plate extending between said pair of notched receiving members and about~~  
9 ~~parallel to the scraper blade such that at least a portion of the scraper blade rests flush~~  
10 ~~against said face plate when the scraper blade is situated in said pair of notched receiving~~  
11 ~~members; and~~  
12 ~~a means for spraying a liquid on the conveyor belt, wherein the liquid is selected~~  
13 ~~from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust~~  
14 ~~inhibitor.~~

27-30 (Cancelled)

1 31. (New) The blade support sub-assembly according to claim 26, wherein said mounting  
2 sub-assembly comprises a first hollow member being an elongated tube having an internal  
3 diameter, a second member being an elongated component having an external diameter

1 less than said internal diameter of said first hollow member wherein said second member  
2 is inserted within said first hollow member thereby creating a space between said first  
3 hollow member and said second member, a means for restricting rotation of said second  
4 member within said first hollow member contained within said space, a means for  
5 securing said second member to said pair of notched receiving members such that as said  
6 second member rotates within said first hollow member said notched receiving members  
7 rotate, and a means for securing said first hollow member at a position below the  
8 conveyor belt such that the scraper blade is in contact with the conveyor belt.

- 1 32. (New) The blade support sub-assembly according to claim 31, wherein said second  
2 member has a length longer than said first hollow member.
- 1 33. (New) The blade support sub-assembly according to claim 31, wherein said first hollow  
2 member and said second member have a generally square cross-sectional shape.
- 1 34. (New) The blade support sub-assembly according to claim 33, wherein said second  
2 member is offset approximately 45 degrees from said first hollow member when said  
3 second member is inserted within said first hollow member.
- 1 35. (New) The blade support sub-assembly according to claim 34, wherein said second  
2 member has rounded corners.
- 1 36. (New) The blade support sub-assembly according to claim 31, wherein said means for  
2 restricting rotation of said second member within said first hollow member contained  
3 within said space is one or more torsion elements in said space.
- 1 37. (New) The blade support sub-assembly according to claim 36, wherein said one or more  
2 torsion elements are elongated bars of rubber having a length generally equal to a length

1 of said first hollow member.

1 38. (New) The blade support sub-assembly according to claim 37, wherein said torsion  
2 elements have a generally circular cross-sectional shape.

1 39. (New) The blade support sub-assembly according to claim 32, wherein said means for  
2 securing said second member to said pair of notched receiving members comprises a first  
3 end of said second member protruding through a hole in one of said pair of notched  
4 receiving members and a second end of said second member protruding through a hole in  
5 a second of said pair of notched receiving members.

1 40. (New) The blade support sub-assembly according to claim 1, wherein said face plate is  
2 positioned between said notched receiving members such that said face plate is at a height  
3 aligned with a height of said rear vertical stabilizer of each said notched receiving  
4 member.

1 41. The blade support sub-assembly according to claim 1, further comprising:  
2 a shield attached to the scraper blade, wherein said shield extends from the scraper  
3 blade and over the blade support sub-assembly.

1 42. (New) The blade support sub-assembly according to claim 1, wherein said mounting sub-  
2 assembly comprises a first hollow member being an elongated tube having an internal  
3 diameter, a second member being an elongated component having an external diameter  
4 less than said internal diameter of said first hollow member wherein said second member  
5 is inserted within said first hollow member thereby creating a space between said first  
6 hollow member and said second member, a means for restricting rotation of said second  
7 member within said first hollow member contained within said space, a means for  
8 securing said second member to said pair of notched receiving members such that as said

1 second member rotates within said first hollow member said notched receiving members  
2 rotate, and a means for securing said first hollow member at a position below the  
3 conveyor belt such that the scraper blade is in contact with the conveyor belt.

1 43. (New) The blade support sub-assembly according to claim 42, wherein said second  
2 member has a length longer than said first hollow member.

1 44. (New) The blade support sub-assembly according to claim 42, wherein said first hollow  
2 member and said second member have a generally square cross-sectional shape.

1 45. (New) The blade support sub-assembly according to claim 44, wherein said second  
2 member is offset approximately 45 degrees from said first hollow member when said  
3 second member is inserted within said first hollow member.

1 46. (New) The blade support sub-assembly according to claim 45, wherein said second  
2 member has rounded corners.

1 47. (New) The blade support sub-assembly according to claim 42, wherein said means for  
2 restricting rotation of said second member within said first hollow member contained  
3 within said space is one or more torsion elements in said space.

1 48. (New) The blade support sub-assembly according to claim 47, wherein said one or more  
2 torsion elements are elongated bars of rubber having a length generally equal to a length  
3 of said first hollow member.

1 49. (New) The blade support sub-assembly according to claim 48, wherein said torsion  
2 elements have a generally circular cross-sectional shape.

1 50. (New) The blade support sub-assembly according to claim 43, wherein said means for  
2 securing said second member to said pair of notched receiving members comprises a first  
3 end of said second member protruding through a hole in one of said pair of notched  
4 receiving members and a second end of said second member protruding through a hole in  
5 a second of said pair of notched receiving members.